

**Remarks**

The Applicants have amended Claim 4 to correct a typographical error. The Applicants respectfully request that this amendment be entered into the official file since it has no bearing at all on the scope of the claims or merits of the claimed subject matter.

The Applicants note with appreciation the withdrawal of the prior rejection based on §112. Thus, the sole remaining rejection is the rejection of all of the claims under 35 USC §103 over the hypothetical combination of Sadamitsu with Asakura. The Applicants note with appreciation the Examiner's detailed comments hypothetically applying the combination against the claims. However, the Applicants respectfully submit that one skilled in the art would not make the hypothetical combination. Detailed reasons are set forth below.

The Applicants will address a number of the specific comments in the rejection. However, before moving to those specific points, the Applicants note that a rejection based on §103 requires that there be a motivation supplied by the prior art to make modifications and that there would be a reasonable expectation of success in making the modifications. The Applicants respectfully submit that one skilled in the art would not be motivated to make the hypothetical combination and, in any event, would not have a reasonable expectation of success. This will become apparent as the Applicants address the individual points.

The rejection states that "the only relevant portion of the disclosure of Asakura et al. would be disclosure to films containing less than 10% PMP." The rejection also points to a portion of the disclosure of Asakura that "cushion properties of the resulting film may be insufficient" and points out the Applicants' prior incorrect characterization of that statement by use of "will." The Applicants confirm that Asakura states that the cushioned properties of the resulting film may become insufficient. However, the Applicants do not agree that "the only

relevant portion" of Asakura is limited to disclosure related to films containing less than 10% PMP. Asakura contains other disclosure that is extremely relevant to making the hypothetical combination and a reasonable expectation of success.

The reasons for this can be gleaned from referring to Examples 2-4 of Asakura and Table I of Asakura which provides results from Examples 2-4, among others. One skilled in the art will almost instantly glean the fact that increasing the amount of PMP increases the cushion factor. Said differently, decreasing the amount of PMP decreases the cushion factor. The Applicants respectfully submit that this is not only relevant, but essentially compels a finding of nonobviousness.

It should be kept in mind that not only does Asakura teach that increases in PMP increases the cushion factor, but that Asakura teaches a range of 10-40% PMP. Thus, to the extent that one skilled in the art would seek to increase the cushion factor, one skilled in the art would likely increase the amount of PMP based on those teachings.

In sharp contrast, Asakura would not lead one skilled in the art to decrease the amount of PMP when attempting to increase the cushion factor. The experimental results in Asakura clearly show that decreasing the amount of PMP decreases the cushion factor. Thus, the Applicants respectfully submit that this portion of the Asakura disclosure is highly relevant to establishing non-obviousness of the Applicants' solicited claims.

Turning to Sadamitsu which discloses a PMP content of 10% or less, there is utterly no disclosure concerning the cushion factor and what might or might not have an impact on the cushion factor. Thus, the relevant fact with respect to cushion factor that Sadamitsu has to contribute is the disclosure of PMP in an amount of less than or equal to 10%. Therefore, if one skilled in the art were to view that extremely limited disclosure of Sadamitsu in the context of

the teachings of Asakura, which factually leads those skilled in the art to conclude that decreasing the amount of PMP leads to a lower cushion factor, one skilled in the art would have a reasonable expectation that if the amount of PMP disclosed in Sadamitsu were to be used in the Asakura films, the result would likely be a lower cushion factor based on the lower amount of PMP. The Applicants respectfully submit that there would not be a reasonable expectation that utilizing the lower amount of PMP as disclosed by Sadamitsu would increase the cushion factor. This is because Sadamitsu does not even mention cushion factor and Asakura discloses that decreasing the amount of PMP decreases the cushion factor.

This means that one skilled in the art would not be motivated to modify Asakura by importing the teachings of Sadamitsu. Moreover, this means that one skilled in the art would not have a reasonable expectation of success in importing the teachings of Sadamitsu into Asakura when attempting to increase the cushion factor.

The rejection states that cushioning properties can be affected by multiple variables and the possible reduction in cushioning properties would not prevent one skilled in the art from expecting success in including a core layer which has less than 10% PMP with the skin layers of Asakura. However, as noted above, Asakura provides very explicit disclosure that increasing the contents of PMP increases the cushion factor, or said differently, decreasing the amount of PMP decreases the cushion factor.

The rejection also states that voids created in both the films of the prior art and the Applicants' films are a result of the different crystalline states of polypropylene and are therefore non-nucleus voids in that there is no nucleating particle left in the void after it is stretched. However, the Applicants respectfully submit that this is not correct. Sadamitsu discloses "this mixture was melt mixed at 250°C in a single screw extruder." This statement may be found in

paragraph [0308] of Sadamitsu. This is sharply contrasted, however, with the Applicants' methodology wherein the mixture is melt mixed at a higher temperature such as 280°C in a twin screw extruder. This may be found in paragraph [0256] of the Applicants' Specification. Thus, this means that the  $\beta$ -crystal nucleating agent is uniformly dispersed into polymer and the  $\beta$ -crystalline polypropylene is also uniformly dispersed in the film. This is the reason why the Applicants' films have a higher cushion fashion due to the uniform and fine voids. Accordingly, "no nucleating particle left in the void after it is stretched" means that the size of the nucleating agent is too small to be found in the film.

The rejection further states that Sadamitsu does disclose curing the previous deficiencies in the prior art in terms of the uniform film properties in paragraph [0012]. The Applicants do not agree. Moreover, the Applicants respectfully submit that the "uniform film properties ([0012])" of Sadamitsu is insufficient in a comparison of uniformity with the Applicants' claimed films for the reasons set forth above.

The rejection further states that the pore size of Sadamitsu is disclosed as being below 0.1  $\mu\text{m}$  in paragraph [0031] which is what the Applicants cites as a sufficiently small pore size for the instantly-claimed cushioning factor. Again, the Applicants do not agree. The Applicants respectfully submit that the "pore size being below 0.1  $\mu\text{m}$ " ([0031]) of Sadamitsu et al. is the size that penetrates the other surface of the film. The pore size in Sadamitsu that affects the cushioning factor is about 10  $\mu\text{m}$  as shown in the Sadamitsu examples.

As a consequence of all of the above points, particularly the clear teaching in Asakura that increasing the amount of PMP increases cushion factor and decreasing the amount of PMP decreases the cushion factor, the Applicants respectfully submit that Sadamitsu and Asakura,

whether taken individually or collectively, are inapplicable to the Applicants' solicited claims.  
Withdrawal of the rejection is respectfully requested.

In light of the foregoing, the Applicants respectfully submit that the entire Application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,



T. Daniel Christenbury  
Reg. No. 31,750  
Attorney for Applicants

TDC/vp  
(215) 656-3381